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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,945	07/13/2000	Peng Jic Zhang	2925-0494P	3637

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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12/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/615,945

Applicant(s)

ZHANG, PENG JI

Examiner

Michael N. Opsasnick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/7/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As per the most recent interpretation of the Interim Guidelines regarding 35 U.S.C. 101, claims 1-21 define non-statutory processes because they merely manipulate an abstract idea (the mathematical manipulation of data (voice information and text)) without a claimed limitation to produce a useful, concrete, tangible result. If the acts of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter (Benson, 409 U.S. at 71-72, 175, USPQ at 676). Furthermore, claims define nonstatutory processes if they simply manipulate abstract ideas (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759). Lastly, in evaluating claims in view of 35 U.S.C. 101, the "limited to the technological arts" test is no longer valid (see Annex III of the Interim Guidelines).

Allowable Subject Matter

3. Claims 1-21 are allowable over the prior art of record.

The claim limitations pertaining to a method of discriminating speech from voice-band data (VBD) in a communication network calculating a self similarity ratio value representing a periodicity characteristic and calculating an autocorrelation coefficient value representing a spectral characteristic, along with calculating the self similarity ratio value includes calculating a plurality of different self similarity ratio values and selecting the highest one of the plurality of different self similarity ratio values as the calculated self similarity ratio value is not explicitly taught by the prior art of record.

With respect to the prior art of record, the Sewall reference is directed to a method of signal classification to determine which type of voice-band traffic is being carried. Sewall discloses classifying signals on a communication channel without a periodicity parameter, with the signals being on a channel to be classified. Huang is directed to separating voiced and un-voiced portions of speech to be sent over a communications channel. The apparatus disclosed by Huang operates on signals to be sent, which is distinct and different from the signals actually on the communication channel disclosed by Sewall. And as such it would not have been obvious to one of ordinary skill in the art to combine the teachings of Sewall and Huang.

Response to Arguments

4. Applicant's arguments filed 9/7/2007 have been fully considered but they are not persuasive. As per applicants arguments that "determining whether said input signal is speech or voice-band data" denotes a practical, useful application, examiner argues that the claim scope does not produce a "useful, concrete, tangible result". In Arrhythmia Research Teeh. Inc. v. Corazonix Corp., 958 F.2d 1053 (Fed. Cir. 1992), the output of pixel data to a screen representing the transformation of the heart signal was determined to be statutory (because the output was a useful, concrete tangible result); in State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, the output of a final share price representing a real value of a commodity was determined to be statutory (because the output was a useful, concrete tangible result). The current claim scope does not produce a useful, concrete tangible output.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry of a general nature or relating to the status of this applications should be directed to the Group receptionist whose telephone number is (703)305-3900. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richemond Dorvil, can be reached at (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MICHAEL OPSASNICK
PRIMARY EXAMINER

mno



primary examiner

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11/28/07